

Neutrokine- α

1	AAATTCAGGATAACTCTCCTGAGGGGTGAGCCCAAGCCCTGCCATGTAGTGCACGCAGGAC	60
61	ATCAACAAACACAGATAACAGGAAATGATCCATTCCCTGTGGTCACTTATTCTAAAGGCC	120
121 1	CCAACCTTCAAAGTTCAAGTAGTGATATGGATGACTCCACAGAAAGGGAGCAGTCACGCC M D D S T E R E Q S R L	180 12
181 13	TTACTTCTTGCCTTAAGAAAAGAGAAAATGAAACTGAAGGAGTGTGTTTCCATCCTCC T S C L K K R E E M K L K E C V S I L P CD-I	240 32
241 33	CACGGAAGGAAAGCCCCTCTGTCCGATCCTCCAAAGACGGAAAGCTGCTGGCTG	300 52
301 53	TGCTGCTGCACTGCTGCTTGCTGCCTCACGGTGGTGTCTTTCTACCAGGTGGCCGCCC L L A L L S C C L T V V S F Y Q V A A L	360 72
361 73	TGCAAGGGGACCTGGCCAGCCTCCGGGCAGAGCTGC Q G D L A S L R A E L Q G H H A E K L P CD-II	420 92
421 93	A G A P K A G L E E A P A V T A G L CD-III	
481 113	TGAAAATCTTTGAACCACCAGCTCCAGGAGAAGGCAACTCCAGTCAGAACAGCAGAAATA K I F E P P A P G E G N S S Q N S R N K	540 132
541 133	AGCGTGCCGTTCAGGGTCCAGAAGAAACAGTCACTCAAGACTGCTTGCAACTGATTGCAG R A V Q G P E E T V T Q D C L Q L I A D CD-IV	600 152

FIG.1A

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Neutrokine- α

187		
601 153	ACAGTGAAACACCAACTATACAAAAAGGATCTTACACATTTGTTCCATGGCTTCTCAGCT S E T P T I Q K G S Y T F V P W L L S F CD-V	660 172
661	TTAAAAGGGGAAGTGCCCTAGAAGAAAAAGAGAAATATTGGTCAAAGAAACTGGTT	720
173	KRGSALEEKENKILVKETGY CD-V	192
721		700
193	ACTITITATATATGGTCAGGTTTTATATACTGATAAGACCTACGCCATGGGACATCTAA FFIYGOVLYTDKTYAMGHLI	780 212
	CD-VI CD-VII	
781	TTCAGAGGAAGAAGGTCCATGTCTTTGGGGGATGAATTGAGTCTGGTGACTTTGTTTCGAT	840
213	QRKKVHVFGDELSLVTLFRC CD-VIII #	232
841	GTATTCAAAATATGCCTGAAACACTACCCAATAATTCCTGCTATTCAGCTGGCATTGCAA	900
233	I O N M P E T L P N N S C Y S A G I A K CD-VIII CD-IX	252
901	AACTGGAAGAAGGAGATGAACTCCAACTTGCAATACCAAGAGAAAAATGCACAAATATCAC	060
253	LEEGDELQLAIPRENAQISL	960 272
•	CD-X	
961 273	TGGATGGAGATGTCACATTTTTTGGTGCATTGAAACTGCTGTGACCTACTTACACCATGT D G D V <u>T F F G A L K L</u> L CD-XI	1020 285
1021	CTGTAGCTATTTTCCTCCCTTTCTCTGTACCTCTAAGAAGAAAGA	1080
1081	CCAAAAAAAAAAAAAA 1100	

FIG.1B

RECEIVED TO THE TOTAL THE TOTAL THE CENTER TO THE TOTAL THE TOTAL



10	TNFalpha TNFbeta LTbeta FasLigand Neutrokine alpha Neutrokine alphaSV	TNFalpha TNFbeta LTbeta FasLigand Neutrokine alpha	TNFalpha TNFbeta LTbeta FasLigand Neutrokine alpha Neutrokine alpha
	20 	40 50	80 C L F L S L F R V R G T T L H L L L G L L V L L R L Q G R G S L L L A V A G A T S L V P L K K R G N H S T G L C L L V M F F Q V A A L Q G D L A S L R A E L Q G H Q V A A L Q G D L A S L R A E L Q G H

FIG.2A



TNFalpha	TNFalpha	TNFalpha
TNFbeta	TNFbeta	TNFbeta
LTbeta	LTbeta	LTbeta
FasLigand	FasLigand	FasLigand
Neutrokine alpha	Neutrokine alpha	Neutrokine alpha
Neutrokine alphaSV	Neutrokine alpha	Neutrokine alphaSV
100 110 120 38 F L I V A G A T T L F C L L H F G V I G P Q R E E F P R 31 G A Q G L P G V G L	0.5000	160 170 180 66 H L I G D P S K Q N - S L Q W L N R R A N A L L 91 H L I G A P L K - G Q G L G W E T T K E Q A F L 148 H L T G K S N S R S M P L E W E D T Y G I V L L 148 Q L I A D S E T P T I Q K G S Y T F V P W L L S F K 142 G S Y T F V P W L L S F K

FIG.2B

09/58 9285



210 210 210 210 210 210 210 210
114 A N G V E L R D N - Q L V V P S E G L V L I Y S Q V L 115 G T Q F S D A E G L A L P Q D G L Y T L C L W G 1172 - S G V K Y K K G - G L V I N E T G L Y F V Y S Q V V 1174 R G S A L E E K E N K I L V K E T G Y F F I Y G Q V L 1155 R G S A L E E K E N K I L V K E T G Y F F I Y G Q V L 1167 R G S A L E E K E N K I L V K E T G Y F F I Y G Q V L 1178 R A Y S P K A T S S P L Y L A H E W Q L F S G A Y 118 R A Y S P K A T S S P L Y L A H E W Q L F S G A Y 119 R R A P G G G D P Q G R S V T L R S S L Y R A G G A Y 110 Q S C N H L I Q R K K V H V F G D E L 111 Q S C N H L I Q R K K V H V F G D E L 1185 K T Y A M G H L I Q R K K V H V F G D E L 1185 K T Y A M G G L Q E P 1185 K T Y A M G G L Q E P 1186 K T Y A M G G L Q E P 1187 K T Y A M G G L Q E P 1188 K T Y A M G G L Q E P 1189 K T Y A M G

FIG.2C



TNFalpha :TNFbeta Tbeta	FasLigand Neutrokine alpha Neutrokine alphaSV	TNFalpha TNFbeta LTbeta FasLigand Neutrokine alpha
290 G D R L S A E I N R P D Y L D F A E G D Q L S T H T D G I P H L V L S P G F R V Y N N T S H P D M W D F A R	A D H I T W N V S E L S L W N F E E G D E L Q L A I P R E N A Q II S L D G D E L Q L A I P R E N A Q II S L D	
280 PIVLGGVFQLEK SMYHGAAFQLTQ	S S Y L G A W F N L T S A S C Y S A G I A K L E E G S C Y S A G I A K L E E G	310 S G Q V Y F G I I A L S - T V F F G A F A L S - Q T F F G L Y K L G D V T F F G A L K L G D V T F F G A L K L
193	242 244 225	223 196 234 272 274 255

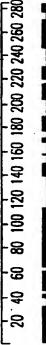
FIG.2D

RECEIVED TO THE THE PROPERTY OF THE PARTY OF





NEUTROKINE—a



- ALPHA, REGIONS-GARNIER-ROBSON ALPHA, REGIONS-CHOU-FASMAN

 - BETA, REGIONS—CARNIER-ROBSON BETA, REGIONS—CHOU-FASMAN
- Turn, regions—garnier—robson TURN, REGIONS-CHOU-FASMAN COIL, REGIONS-CARNIER-ROBSON
- HYDROPHILICITY PLOT-KYTE-DOOLITILE

-2.78

□ HYDROPHOBICITY PLOT-HOPP-WOODS

- ALPHA, AMPHIPATHIC REGIONS—EISENBERG
- BETA, AMPHIPATHIC REGIONS-EISENBERG
 - FLEXIBLE REGIONS-KARPLUS-SCHULZ

3.4

■ ANTIGENIC INDEX-JAMESON-WOLF

- I SURFACE PROBABILITY PLOT-EMINI



	1	•			50
HSOAD55R	A	GGNTAACTCT	CCTGAGGGGT	GAGCCAAGCC	CTGCCATGTA
HNEDU15X	AAATTCA	GGATAACTCT	CCTGAGGGGT	GAGCCAAGCC	CTGCCATGTA
HSLAH84R	.AATTCGGCA	NAGNAAACTG	GTTACTTTTT	TATATATGGT	CAGGTTTTAT
HLTBM08R	AATTCGGCAC	GAGCAAGGCC	GGCCTGGAGG	AAGCTCCAGC	TGTCACCGCG
		:			
11004555	51	, 			100
HSOAD55R	GIGCACGCAG	GACATCANCA	AACACANN	NNNCAGGAAA	TAATCCATTC
HNEDU15X	GTGCACGCAG	GACATCAACA	AACACAGA	TAACAGGAAA	TGATCCATTC
HSLAH84R				TAGTTCAGAG	
HLTBM08R	GGACTGAAAA	TCTTTGAACC	ACCAGCTCCA	GGAGAAGGCA	ACTCCAGTCA
	101		•		. 150
HSOAD55R		CTTATTCTAA	VCCCCCVVC	CTTCAAAGTT	150
HNEDU15X				CTTCAAAGTT	
HSLAH84R				ACTITIGATIC	
HLTBM08R				TCCAGAAGAA	
FIL I DIVOR	GAACAGCAGA	AATAAGCGTG	CCGTTCAGGG	TUCAGAAGAA	ACAGICACIC
	151				200
HSOAD55R		TCCACAGAAA	GGGAGCAGTC	ACGCCTTACT	
HNEDU15X				ACGCCTTACT	
HSLAH84R				CTGCTATTCA	
HLTBM08R				AAACACCAAC	
	,				
	201				250
HSOAD55R				TGTGTTTCCA	
HNEDU15X	AGAAAAGAGA	AGAAATGAAA	CT.GAAGGAG	TGTGTTTCCA	TCCTCCCACG
HSLAH84R	CAAAACTGGN	AGGAAGGA	GATGAAC	TCCAACTTGC	AATACCAGGG
HLTBM08R	GGCTCCCTTC	TGNTGCCACA	TTTGGGCCAA	GGAATGGAGA	GATTTCTTCG
	251				200
HSOAD55R		CCCTCTNTCC	CATCCTCCAA	AGACGGAAAG	300
HNEDU15X				AGACGGAAAG	
HSLAH84R				TGTTCACATT	
HLTBM08R	TCTCCAAACA	TTTTCCCAAA	CTCTTCACAT	ACTCTTTNCT	CTCTCCCAAT
TIE TOPIOOK	TC TGGAAAACA	, I I I GCCAAA	CICITCAGAT	ACICITING	CICIGGGAAI
	301	•			350
HSOAD55R		GNTGGCATTG	TGTTCTTGCT	GNCTCAAGGT	GGTGTTNTT
HNEDU15X				GCCTCACGGT	
HSLAH84R	CATTGAAACT	GCTGTGACCT	NCTTACANCA	NGTGCTGTTN	GCTATITING
HLTBM08R	CAAAGGAAAA	TCTCTACTTA	GATTNACACA	TTTGTTCCCA	TEGETNICIT
					· dudinioi j
	351			•	400
HSOAD55R				••••••	• • • • • • • • •
HNEDU15X	TACCAGGTGG	CCGCCCTGCA	AGGGGACCTG	GCCAGCCTCC	GGGCAGAGCT
HSLAH84R	CTNCCTNTTC	TNTGGTAACC	TCTTAGGAAG	GAAGGATTCT	TAACTGGGAA
HLTBM08R	AAGTTTTAAĄ	AGGGGAGTGC	CCTTAGGAGG	AAAAGGGGAT	AAATATTGGC
	:				



	401 450	
HSOAD55R HNEDU15X HSLAH84R	GCAGGGCCAC CACGCGGAGA AGCTGCCAGC AGGAGCAGGA GCCCCCAAGG ATAACCCAAA AAAANNTTAA ANGGGTANGN GNNANANGNG GGGNNGTTNN	
HLTBM08R	CAAGGNACTG GTTANTTTNT AAATATGGTC AGGTTTNTAT ANCTGGTAGG	
UCOADEED.	451 500	
HSOAD55R HNEDU15X	CCGGCCTGGA GGAAGCTCCA GCTGTCACCG CGGGACTGAA AATCTTTGAA	
HSLAH84R HLTBM08R	CNNGNNGNNT TITNGGNNTA TNTTNTNNTN GGGNNNNGTA AAAATGGGGC CCTCGCCATG GGCATTNATT CANGGNGAGG NCNNTCTTTT GGGNTGA	
TIETOMOOK		
HSOAD55R	501 550	
HNEDU15X	CCACCAGCTC GAGGAGAAGG CAACTCCAGT CAGAACAGCA GAAATAAGCG CNANGGGGGN TTTTT	
HSLAH84R HLTBM08R	CNANGGGGN 1111	
	551 600	
HSOAD55R	TGCCGTTCAG GGTCCAGAAG AAACAGTCAC TCAAGACTGC TTGCAACTGA	
HNEDU15X HSLAH84R HLTBM08R		
UCOADEED	601 650	
HSOAD55R HNEDU15X	TTGCAGACAG TGAAACACCA ACTATACAAA AAGGATCTTA CACATTTGTT	
HSLAH84R HLTBM08R		
TILTBROOK		
HSOAD55R	651 700	
HNEDU15X HSLAH84R	CCATGGCTTC TCAGCTTTAA AAGGGGAAGT GCCCTAGAAG AAAAAGAGAA	
HLTBM08R		
	701 750	
HSOAD55R	TAAAATATTG GTCAAAGAAA CTGGTTACTT TTTTATATAT GGTCAGGTTT	
HNEDU15X HSLAH84R	GCCAAGAAA CIGGIIACII IIIIAIAIAI GGCAGGIII	
HLTBM08R		
UCOADEED	751 800	
HSOAD55R HNEDU15X	TATATACTGA TAAGACCTAC GCCATGGGAC ATCTAATTCA GAGGAAGAAG	
HSLAH84R HLTBM08R		
TIL I DINON	# #	
	FIG.4B	
	FIG.4B FIG.4B	
	·	_



	801	•			850
HSOAD55R HNEDU15X	GTCCATGTCT	TTGGGGATGA	ATTGAGTCTG		TTCGATGTAT
HSLAH84R HLTBM08R					
TL I DINUOK	••••••	•,• • • • • • •		• • • • • • • • •	• • • • • • • • • •
	851	•			900
HSOAD55R HNEDU15X	TCAAAATATG	CCTGAAACAC	ΤΛΟΟΟΛΑΤΛΑ	TTCCTGCTAT	TCAGCTGGCA
HSLAH84R					
HLTBM08R	•••••	• • • • • • • • •			• • • • • • • • • • • •
	001				950
HSOAD55R	901				
HNEDU15X		GGAAGAAGGA	GATGAACTCC	AACTTGCAAT	ACCAAGAGAA
HSLAH84R				• • • • • • • • • • • • • • • • • • • •	
HLTBM08R				• • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
	951	•			1000
HS0AD55R		TATCACTOCA	TOCACATOTO	ACATTITIC	CTCCATTCAA
HNEDU15X HSLAH84R		•		ACATTTTTG	
HLTBM08R					
		٠.			
HCOADEED	1001	•			1050
HSOAD55R HNEDU15X	ACTGCTGTGA	CCTACTTACA	CCATGTCTGT	AGCTATTTC	CTCCCTTTCT
HSLAH84R				• • • • • • • • • • • • • • • • • • • •	
HLTBM08R				• • • • • • • • • •	
•	1051				1100
HSOAD55R					
HNEDU15X				AAAATACCAA	
HSLAH84R HLTBM08R	• • • • • • • •			· • • • • • • • • • • • • • • • • • • •	
	1101	· · ·			
HSOAD55R		:	. :		
HNEDU15X HSLAH84R	AAAAAA				
HLTBM08R					
					. 1

FIG.4C





Neutrokine-αSV

1	AT(AAG(R											GAA/ K		AGAA E	60 20
61 21	GA E			ACT		GGA E	,		TTC S					K		S	-	_		CCGA R	120 40
121 41	<u>S</u>		K				GCT.										GCT		TTG C	CTCC C	180 60
181 61	CT <u>L</u>	CAC T	GGT V	GGT V	GTC S	TTI F	CTĄ Y	CCA 0	GGT V	GGC A	CGC A	CCT <u>L</u>	GCA Q	AGG	GGA D		GGC A -II	CAG S	CCT L	CCGG R	240 80
241 81	A						ACCA H							AGG G		G		Р		GGCC A	300 100
101							AGC								CTT F	TGA E	ACC P	ACC P	AGC A	TCCA P	360 120
361 121																			AG/ E	AGAA E	420 140
421 141		CAGO G		YTC Y	T		TGT <u>V</u>				TCT		F	TAA <u>K</u>)-IV	R			TGC _A	CC1 L	AGAA E	480 160
481 161		<u>_K</u>	VAG/ E	Agaz N	ATA/ K	VAA [*] L		GGT V		VAG/	T	CTG(Y CD-	F	F	TAT	TATA Y	ATGG	TC# 0	AGGTT V	540 180
541 181		TAT/	ATAC T	D		T			<u>M</u>	G	Ħ		I	Q		K	AGA/			ATGTC V	600 200
										-1 4		h	Λ						\ <u>`</u>	7. (<u> </u>

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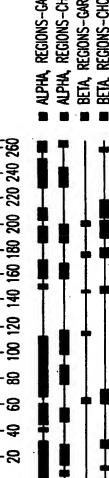
Neutrokine-αSV

601	TTTGGGGATGAATTGAGTCTGGTGACTTTGTTTCGATGTATTCAAAATATGCCTGAAACA	660
201	FGDELSL <u>VTLFRCIQNMP</u> ET	220
C	D-VIII CD-VIII	
661	CTACCCAATAATTCCTGCTATTCAGCTGGCATTGCAAAACTGGAAGAAGGAGATGAACTC	720
221	LPNNSCYSAGIAKLEEGDEL	240
	CD-IX CD-X	
721	CAACTTGCAATACCAAGAGAAAATGCACAAATATCACTGGATGGA	780
241	Q L A I P R E N A Q I S L D G D V T F F	260
	CD-XI CD-XI	
781	GGTGCATTGAAACTGCTGTGACCTACTTACACCATGTCTGTAGCTATTTTCCTCCCTTTC	840
261	G A L K L L	266
201	CD-XI	200
	CD-VI	
041		900
841	TCTGTACCTCTAAGAAGAAAGAATCTAACTGAAAAATACCAAAAAAAA	900
901	AAA 903	

FIG.5B

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NEUTROKINE-aSV

ALPHA, REGIONS-GARNIER-ROBSON ALPHA, REGIONS-CHOU-FASHAN

BETA, REGIONS-CARNIER-ROBSON REGIONS-CHOU-FASIMAN

iurn, regions—garnier—robson

TURN, REGIONS-CHOU-FASMAN COIL, REGIONS-CARNIER-ROBSON

■ HYDROPHILICITY PLOT-KYTE-DOOL/TILE

E HYDROPHOBICITY PLOT-HOPP-WOODS

■ ALPHA, AMPHIPATHIC REGIONS—EISENBERG

■ BETA, AMPHIPATHIC REGIONS—EISENBERG

■ FLEXIBLE REGIONS—KARPLUS—SCHULZ

■ ANTIGENIC INDEX-JAMESON-WOLF

SURFACE PROBABILITY PLOT-EMINI

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